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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,939	10/29/1999	MICHEL AUTHIER		6547

7590 09/29/2004

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EXAMINER

PRUNNER, KATHLEEN J

ART UNIT	PAPER NUMBER
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3751

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/429,939	AUTHIER ET AL.	
	Examiner	Art Unit	
	Kathleen J. Prunner	3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Apr 9 & July 27, 2004 and Feb 13, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. The request filed on April 9, 2004 for a Request for Continued Examination (RCE) under 37 CFR 1.114 (a)(3) based on parent Application No. 09/429,939 is acceptable and an RCE has been established. An action on the RCE follows.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed terminology. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). The claimed terminology which lacks such antecedent basis is as follows: "wherein said computer (means) selectively activates and deactivates said at least one air blower", as called for by claims 32 and 38. Correction is required to add such language to the specification.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 26-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tompkins et al. ('720) in view of Dundas. Tompkins et al. disclose a freeze control system (note from line 62 in col. 18 to line 18 in col. 19) for a spa, wherein the spa is surrounded by ambient air defining an ambient air temperature, having a spa tub or container 11 for holding or containing tub water having a tub water temperature, spa piping 35 for circulating water to and from the spa tub 11, a heating element 26 for producing heated water, at least one water pump 24 for pumping the water, a first temperature sensor 21 for detecting the temperature of the water in the spa tub 11, and a computer 10 programmed to process signals and selectively activates and deactivates the heating element 26, blower 28 and the pump 24 (note lines 50-55 in col. 1 and from line 66 in

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col. 18 to line 36 in col. 19) based upon inputs (note lines 25-28 in col. 16). Tompkins et al. also disclose sensors for detecting various parameters of the water and the system (note lines 26-28 in col. 16) with such sensors including a sensor 21 for detecting the tub water temperature (note lines 30-31 in col. 16), and that the temperature of the tub water being maintained is related to the ambient temperature (note lines 19-31 in col. 20). Although Tompkins et al. fail to disclose the use of a second sensor for detecting the ambient air temperature, attention is directed to Dundas who discloses another control system for a spa or pool that uses both a water temperature sensor and an ambient air temperature sensor to activate the control system (note lines 54-57 in col. 1 and lines 16-33 in col. 2) in order to heat the pool using minimal energy with less waste and expense (note lines 15-19 and 35-37 in col. 1). It would have been obvious to one of ordinary skill in the spa/pool art, at the time the invention was made, to use an ambient air temperature sensor in conjunction with the water temperature sensor in the control system of Tompkins et al. in view of the teachings of Dundas in order to more effectively operate the control system using minimal energy with less waste and expense. With respect to claims 27 and 33, Tompkins et al. further disclose that the computer comprises computer components (note from line 62 in col. 2 to line 2 in col. 16). Also with regard to claims 27 and 33, it is considered that the positioning of the ambient air temperature sensor is an obvious expedient to the skilled artisan since to obtain an accurate ambient air temperature reading, the ambient air temperature sensor would necessarily have to be mounted so as to be unaffected by any apparatus that emits heat, including that of the components of the control system. With regard to claims 28, 29, 34 and 35, it is considered that to position the ambient air temperature sensor closer to the spa equipment where it can be affected by the heat generated by the operating and control systems of the spa/pool and to have the computer make the required correction factors to account for this heat would be an obvious expedient to the skilled artisan especially when available space is limited and accurate readings are key to the efficient operation of the spa. With regard to claims 31 and 37, although it is considered that the predetermined time period necessary to effect operation of the pump is an obvious expedient to the skilled artisan, to use a predetermined time

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period of one minute to effect operation of the pump is simply the result of optimization of the prior art teachings through routine experimentation, which is not a matter of invention, absent a showing to the contrary (see *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA) 1955), and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). With respect to claims 32 and 38, Tompkins et al. further disclose an air blower 28 for blowing air into the spa tub 11.

Response to Arguments

5. Applicant's arguments filed February 13, 2004 have been fully considered but they are not deemed persuasive.

6. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

7. Applicant's arguments regarding the Dundas reference have been carefully considered. However, the Dundas reference is not relied on to show a computerized control system. The primary reference to Tompkins et al. disclose the computerized control system in question. The Dundas reference is merely relied on to show an automatic control system (note lines 16-33 in col. 2) which makes use of an ambient air temperature sensor which functions with the tub/pool water temperature sensor in order to heat or cool the tub/pool water using minimal energy.

8. Applicant's arguments regarding the Dundas reference and freeze control have been carefully considered. However, the Dundas reference discloses using or operating the system during freezing weather in order to control the formation of ice (note lines 22-25 in col. 4). Therefore, Dundas is concerned with controlling freezing which is exactly what applicant and the Tompkins et al. reference are also concerned with. Hence, the Dundas reference is indeed relevant to applicant's invention.


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Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kathleen J. Prunner whose telephone number is 703-306-9044. In mid to late November, 2004, the examiner's office will move to the new complex in Alexandria, Virginia. Upon moving to the new complex, the examiner's new telephone number will be 571-272-4894.

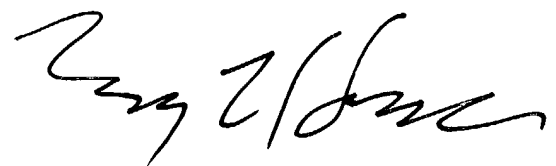
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Huson can be reached on 703-308-2580. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kathleen J. Prunner

September 22, 2004



GREGORY L. HUSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700